Claims :

1. A system for manipulating an image on a screen, said system comprising:

a touch-sensitive screen for displaying said image;

a stylus for indicating a point on said screen by touching said screen; and

generating means for generating said image on said screen, said generating means including a dynamic zoom means for carrying out a zoom action on said image on said screen;

wherein said zoom means detects a point indicated by said stylus on said screen, and repeatedly performs a zoom action on said image on said screen using said detected point as the center of said zoom action until said stylus is removed from said screen.

2. The system of claim 1, wherein said zoom action comprises an enlargement of said image on said screen about said indicated point.

3. The system of claim 1, wherein said zoom action comprises a reduction of said image on said screen about said indicated point.

4. The system of claim 1, wherein said zoom means continually monitors the position of said stylus on said screen, and wherein, on movement of said stylus across said screen, said zoom means alters the center of said zoom action so that the center of said zoom action follows points on the screen traced by said stylus.

5. The system of claim 1, wherein said image is the graphical form of a mathematical object, and wherein said generating means includes means for generating said graphical form of said mathematical object.

6. A method of manipulating an image on a touch-sensitive screen using a stylus, said method comprising the steps of:

displaying said image on said screen;

detecting an instruction to perform a zoom action on said image;

detecting a point of contact of said stylus on said screen;

setting a center of said zoom action at said detected point of contact of said stylus on said screen; and

performing said zoom action on said image on said screen using said set center of zoom; and

repeating said step of performing said zoom action until it is detected that said stylus has been removed from contact with said screen.

7. The method of claim 6, wherein said zoom action is an enlargement of said image on said screen.

8. The method of claim 6, wherein said zoom action is a reduction of said image on said screen.

9. The method of claim 6, including the step of monitoring the position of said stylus on said screen and changing said center of said zoom action in accordance with movement of said stylus across said screen.

10. The method of claim 6, wherein said image is the graphical form of a mathematical object, and wherein said step of displaying an image on said screen includes the step of generating said graphical form of said mathematical object.

11. Computer software for manipulating an image on a screen using a stylus and a touch-screen, wherein the software includes:

a software component for displaying the image on the screen; and

a software component for conducting a zoom action on the image on the screen, said zoom action software component detecting a point indicated by the stylus on the screen and repeatedly performing a zoom action on the image on the screen using the detected point as the center

of the zoom action until the stylus is determined to have been removed from the screen.

12. A data-processing system for manipulating an image, said system comprising:

display means for displaying said image;

indicating means for indicating a point on said display means; and

generating means for generating an image on said display means, said generating means including a zoom means for conducting a zoom action on said image on said display means;

wherein, when said zoom means is activated, said zoom means determines when said indicating means is indicating to a point on said screen, and sets said indicated point as a zoom center; and

wherein said zoom means repeatedly carries out said zoom action on said image on said screen about said zoom center until it is detected that said indicating means has stopped indicating to said point.

13. The system of claim 12, wherein said zoom means determines whether said indicating means moves whilst continuing to indicate to a point on said screen, and wherein said zoom means changes said zoom center to track the points indicated by said indicating means during any such movement of said indicating means.

14. A data-processing method for the manipulation of an image on a screen, said method comprising the steps of:

displaying said image on said screen;

detecting an instruction to perform a zoom action on said image;

detecting a point on said screen indicated at by an indicating means;

setting a center of said zoom action at said indicated point; and

conducting said zoom action on said image on said screen about said set center of zoom; and

repeating said step of conducting said zoom action until it is detected that said indicating means no longer indicates to said point.

15. The method of claim 14, including the steps of:

determining whether said indicating means moves whilst continuing to indicate to points on said screen; and

changing said zoom center to track the points indicated by said indicating means during any such movement of said indicating means.